

The Influence of Structural Features and Surface Properties on the Froth Flotation Extraction of Poorly Floatable Lead Minerals 20-119-5-33/59

and composition strongly differentiates from the easily floatable minerals. Therefore the authors tried to explain the unsatisfactory results in the floatation of the above mentioned minerals by the investigation of their crystallo-chemical characteristic features and of their surface properties with regard to water and various flotation reagents. Based on the results of these investigations also the most effective methods for the floatation of the mentioned minerals are to be found. The authors first of all calculated the energies of the crystal lattices of the lead minerals to be investigated by means of the method by Fersman. According to the results given in a table the energies of the crystal lattices of cerussite, anglesite and wulfenite (group I) differ only little from each other. The second group of minerals (mimetisite, pyromorphite and vanadinite) have great values of lattice energies. The greatest energies of the crystal lattice have boudantite, mimetisite, plumbogojarosite and pyromorphite. Already the given data make possible an orientation in the estimation of the flotation properties with regard to their capability for interaction of all mentioned minerals with the reagents. The inve-

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stigation carried out showed the coincidence of the flotation properties with the capability for interaction of the mentioned minerals with the calculated values of energy of the crystal lattice. Thus, for instance, the effectiveness of the action of sodium sulfide on oxide lead minerals decreases in the transition from the minerals of Group I to the minerals of groups II and III. Various details concerning the flotation of poorly floatable minerals are given. Phosphotene, petroleum, lubricating oil for automobiles, and polugudron together with xanthogenates served as new effective flotation reagents. Finally the author thanks N.V. Belov, Member, Academy of Sciences, and G. B. Bokiy for valuable advice. There are 1 table and 2 references, 0 of which are Soviet.

SUBMITTED: December 18, 1957

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SOV/180-59-3-3/43

AUTHORS: Glembofskiy, V.A., Kelchmanova, A.Ye. and
~~Pirkat~~ ~~rdynskaya~~, A.P. (Moscow)

TITLE: Looking for New Methods of Separating Collective
Flotation Concentrates

PERIODICAL: Izvestiya Akademii nauk SSSR Otdeleniye tekhnicheskikh
nauk, Metallurgiya i toplivo 1951, Nr 3, pp 13-19 (USSR)

ABSTRACT: This article is a report approved by a session of the
Uchenyy Sovet (Scientific Council) of the Institut
Gornogo dela (Mining Institute) AN SSSR (AS USSR) in
December 1950. The authors mention the promising
proposals of A.S.Keney and L.B. Dobrynya, adopted at the
Leninogorskaya obogatitel'naya fabrika (Leninogorsk
Beneficiation Works) (Ref 1 and 2) for the separation of
collective lead-zinc concentrates. To extend the range
of application of collective flotation the authors
decided to study other possible methods. This has led
them to laboratory-scale studies of the stability of
the adsorbed layers of collector on particle surfaces
in relation to different factors. For this the mineral
suspension was treated for a given time with a collector
and then subjected to flotation under normal conditions.

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Looking for New Methods of Separating Collective Flotation
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The product was exposed to the action of the factor being studied and again flotated; with complete destruction of the adsorbed layer hardly any flotation occurred. Abrasive factors were studied using quartz, which was mixed together with the mineral (galenite) in the flotation chamber (Fig 1 shows the flowsheet); the effectiveness depended on the origin of the mineral and the collector used. Quartz was found ineffective with a pyrite, a chalcopyrite and a sphalerite. Thermal disruption of the adsorbed layers was studied using hot water, steam or electric (induction or ordinary frequency) heating of the froth flotation product. Results for water at 100°C are shown as plots of mineral recovery in the second flotation against time of heating (Fig 2 and 3) for a galenite, sphalerite and pyrite with ethyl and amyl xanthates. The treatment was most effective with the galenite. Steam was less effective than hot water. Electric heating was effective for materials relatively insusceptible to hot water treatment: high-frequency heating heating in

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experiments in which G.M.Dmitriyeva participated showed no advantages. To elucidate details of the adsorption layer disruption process special determinations were made of the rate and degrees of decomposition of xanthate solutions at elevated temperatures and also the quantity of xanthate leaving the mineral surface under the action of mechanical or thermal factors. Fig 5 shows plots of amount of undecomposed potassium ethyl xanthates against time for 30, 60, 80 and 100°C. Fig 6 shows plots of undecomposed ethyl, butyl and amyl xanthates after 30 minutes treatment against temperature. The authors conclude provisionally that with thermal decomposition of the adsorbed layer there is no appearance of free xanthate ions in the solutions: the stability of a freshly separated ion is considerably reduced. Since 1956, the authors have been working in collaboration with the laboratoriya ul'trazvuka (Ultrasonics Laboratory) (head I.D.Rozenberg) of the Akusticheskiy institut (Acoustics Institute) of the AN SSSR (AS USSR). A magnetostriction vibrator (frequency

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20 k Hertz, intensity 2 watt/cm²), was used on froth products of galenite, pyrite, spalerite, chalcopryrite, scheelite, calcite, beryl zircon, ilmenite and some other minerals. A chalcopryrite-galenite flotation product could be separated, the galenite being depressed. It is not clear in what form the xanthate is removed from the sulphide surface. It is doubtful if either the abrasive cavitation or temperature rises produced by the ultrasonic beam remove the xanthate. Adsorbed oleate layers on beryl and ilmenite were removed but in general such layers proved stable. Technical-economic calculations are said by the authors to be favourable to the use of ultrasonics. There are 6 figures, 1 table and 10 references, 8 of which are Soviet and 2 English.

SUBMITTED: January 29, 1959

Card 4/4

GLEMBOTSKIY, V.A., prof., doktor tekhn.nauk, otv.red.; MAKOVSKIY, G.M.,
red.izd-va; KOLOKOL'NIKOV, K.A., tekhn.red.

[Mineral dressing] Obogashchenie poleznykh iskopaemykh. Moskva,
1960. 180 p. (MIRA 13:6)

1. Akademiya nauk SSSR. Institut gornogo dela.
(Ore dressing)

GLEMBOTSKIY, V.... (Prof.)

"Physical Stability of Collector Adsorption Layers on Miner-1
Surfaces, and Methods for their Destruction."

Report to be presented at the Intl. Mineral Processing Congress, London, England, 7-14 Apr. 87.
Head of Laboratory of Flotation and Flotation Reagents, Institute of Mining, USSR Academy
of Sciences.

POL'KIN, Stepan Ivanovich, prof., doktor tekhn.nauk; EYGELES, M.A.,
prof., doktor tekhn.nauk, retsenzent; TROITSKIY, A.V., inzh.,
retsenzent; AVSEYENOK, A.F., .otv.red.; GLEMBOTSKIY, V.A., red.;
YEZDOKOVA, M.L., red.isd-va; PROZOROVSKAYA, V.L., tekhn.red.;
BERISLAVSKAYA, L.Sh., tekhn.red.

[Flotation of rare metal and tin ores] Flotatsiia rud redkikh
metallov i olova. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
gornomu delu, 1960. 637 p. (NIRA 13:2)
(Flotation) (Nonferrous metals)

GLEMBOTSKIY, V.A. (Moskva); KOLCH MANOVA, A.Ye. (Moskva)

Effect of heavy metal ions on the interaction of zinc blende
and pyrite with xanthates in flotation. Izv. AN SSSR. Otd.
tekhn. nauk. Met. i topl. no. 5: 200-206 S-O '60. (MIRA 13:11)
(Flotation) (Sphalerite)

S/194/61/000/008/061/092
D201/D304

AUTHORS: Glembofskiy, V.A. and Kolchomanova, A.Ye.

TITLE: The possibility of using ultrasound for the disintegration of flotation layers of reagent-collectors at the surface of mineral particles

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 12, abstract 8 E34 (Nauchn. soobshch. In-t gorn. dela AN SSSR, 1960, 6, 32-37)

TEXT: The method of ultrasonic disintegration was examined for the adsorption layers of collectors formed at the surface of sulphide and non-sulphide minerals. The experiments were carried out at a frequency of 20 kc/s and intensity $\sim 2 \text{ W/cm}^2$. It was found that subjected for 60 sec. only, the galenite with grains 0.1-0.15 mm has its flotation capability substantially changed and after 3 minutes it loses it completely. The US has a good effect on pyrite and practically no effect on floated-off sphalerite and

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The possibility of using...

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chalco pyrite which makes it possible to apply ultrasound for separating complex concentrates. In order to examine the effect of ultrasound, the influence of temperature on adsorption layers was analyzed in the range which take place in ultrasonic irradiation (30-60°C). It is shown that the temperature has practically no effect. All the other conditions being the same, the ultrasound has more effect on coarse-grained materials. Experiments were carried out to determine the optimum quantity of the collector required for subsequent ultrasonic processing. 1 figure. 5 tables. 2 references. [Abstractor's note: Complete translation]

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GLEMBOTSKIY, V.A., doktor tekhn.nauk; SOROKIN, M.M., aspirant

Deactivation of sphalerite in an acid medium. Trudy Inst.gor.de'a
6:77-84 '60. (MIRA 14:4)

(Sphalerite)

GLEMBOTSKIY, V.A.; SMIRNOVA, I.S.

Flotation methods of ore dressing are one hundred years old. TSvet.
met 33 no. 12:11-14 D '60. (MIRA 13:12)
(Flotation)

SOLOZHENI IN, P.M.; GLEMBOTSKIY, V.A.; OGNEVA, L.I.; ZHITOMIRSKIY, A.N.

Complex utilization of waste at the Maikhura concentrating mill
Izv. Otd. geol.-khim. i tekhn. nauk AN Tadzh.SSR 1:31-44 '60
(MIRA 19:1)

1. Institut khimii AN Tadzhikskoy SSR.
(Ore dressing) (Salvage (Waste, etc.))

GLEMBOTSEIY, V.A., doktor tekhn.nauk; SEROKIN, M.M., aspirant

Deactivation of sphalerite in an acid medium. Nauch.sob.
Inst.gor.dola 6:77-84 '60. (MIRA 15:1)
(Sphalerite)

GLEBOVSKIY, V.A.; SOROKIN, M.M.

New inhibitor for bornite and chalcocite in the selection of combined
copper-zinc and copper-lead concentrates. Dokl. AN SSSR 134 no.5:
1146-1149 O '60. (MIRA 13:10)

1. Institut gornogo dela Akademii nauk SSSR. Predstavleno akademikom
A.A.Skachinskim.
(Bornite) (Chalcocite)

GLEMBOTSKIY, Vladimir Aleksandrovich; prof. dokt. tekhn. nauk; KLASSEN, Vili Ivanovich, prof. dokt. tekhn. nauk; PLAKSIN, Igor' Nikolayevich; POL'KIN, S.I., otv. red.; RYKOV, N. ., red. izd-va; KACHALKINA, Z.I., red. izd-vo; SAL'TSOVSKIY, M.S., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red. BOLDYREVA, Z.A., tekhn. red.

[Flotation] Flotatsia. Pod obshchey red. I.N. Plakaina.
Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu.
1961. 547 p.

(MIRA 14:5)

1. Chlen-korrespondent AN SSSR (for Plaksin)
(Flotation)

GLEMBOTSKIY, V. A.

"The Flotation Characteristics of Quartz"

Report presented at the Colloquy on Preparation of Anorganic Non-Metallic minerals, Freiberg, GDR, 29-30 Aug 61

GLEBOVSKIY, V.A.; UVAROV, V.S.; SOLOZHENKIN, I.M.

Some flotation data on celestine. Izv. Vses. geol.-khim. i tekhn.
nauk AN Tadzh. SSR No.1:51-56 '61. (MIRA 14:9)

1. Institut khimii AN Tadzhikskoy SSR,
(Celestite) (Flotation)

GLEMBOTSKIY, V.A.; UYAROV, V.S.; SOLOZHENKIN, P.M.

Studying the effect of some electrolytes on the flotation of celestine by means of various collectors. Izv. Otd. geol.-khim. i tekhn. nauk AN Tadzh. SSR No.1:57-62 '61. (MIRA 14:9)

1. Institut khimii AN Tadzhikskoy SSR.
(Celestite) (Flotation)

GLEMBOTSKIY, V.A.; SHUKHARDIN, S.V.

"Expansion of mining engineering in Russia" by E. M. Faerman.
Reviewed by V. A. Glembotskii, S. V. Shukhardin. Izv. AN SSSR.
Otd. tekhn. nauk. Met. i topl. no.2:190-191 Mr-Apr '61.

(MI L. 14:4)

(Mining engineering) (Faerman, E. M.)

GLEMBOTSKIY, V.A., doktor tekhn.nauk; DMITRIYEVA, G.M., kand.tekhn.nauk

Study of the dependence of the flotation properties of a mineral
on the conditions of its genesis and its geochemical features.

Nauch. soob. IGD 16:14-18 '62.

(MIRA 16:8)

(Minerals--Analysis) (Flotation)

GIEMBOTSKIY, V.A.; KULIKOV, I.M.

Effect of calcium and magnesium ions on cerussite sulfidizing
and flotation processes. Izv. vys. ucheb. zav.; tsvet. met. 5
no.2:38-44 '62. (MIRA 15:3)

1. Irkutskiy politekhnicheskii institut, kafedra obopashcheniya
poleznykh iskopayemykh.
(Cerussite) (Ore dressing) (Ion exchange)

GLEMBOTSKIY, V.A.; KULIKOV, I.M.

Positive effect of ammonium sulfate on processes of sulfidizing and flotation of cerussite in presence of calcium and magnesium ions.
Izv.vys.ucheb.zav.; tsvet.met. 5 no.3:32-41 '62. (MIRA 15:11)

1. Irkutskiy politekhnicheskoy institut, kafedra obogashcheniya
poleznykh iskopayemykh.
(Cerussite) (Flotation)

FLAKSIN, I.N., otv. red.; GLENBOTSKIY, V.A., doktor tekhn. nauk, zam. otv. red.; KLASSEN, V.I., doktor tekhn. nauk, red.; OKOLOVICH, A.M., kand. tekhn. nauk, red.; TRET'YAKOV, O.V., red.; BAKSKIY, L.A., kand. tekhn. nauk, red.; MAKOVSKIY, G.N., red. izd-va; GOLUB', S.F., tekhn. red.

[Ore dressing and coal preparation in the Kazakh S.S.R.; transactions of the out-of-town session in Balkhash and Karaganda, of the Section on Mineral Dressing of the Learned Council of the A.A.Skochinskii Mining Institute (November-December 1960)] Zadachi obogashcheniya rud i ugley Kazakhskoi SSR; trudy vyezdnoi sessii seksii obogashcheniya poleznykh iskopayemykh Uchenogo soveta Instituta i gornogo dela in. A.A.Skochinskogo v gorodakh Balkhashe i Karagande, noyabr'-dekabr' 1960 g. Moskva, Izd-vo Akad. nauk SSSR, 1962. 173 p. (MIRA 15:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Flaksin).
 2. Institut gornogo dela in. A.A.Skochinskogo (for Flaksin, Glenbotskiy, Okolovich, Klassen).
- (Ore dressing) (Coal preparation)

BAYSHULAKOV, A.A.; GLEMBOTSKIY, V.A.; SOKOLOV, M.A.

Emulsification of reagents in the presence of stabilizers.
Vest.AN Kazakh.SSR 18 no.11:47-54 N '62. (MIRA 15:12)
(Surface-active agents) (Ore-dressing)

SOLOZHENKIN, P.M.; GLEMBOTSKIY, V.A., KOTOV, V.A.

Statistical method for determining the optimum conditions of
mineral dressing. Dokl. AN Tadzh. SSR 6 no.2:21-25 '63.
(MIRA 17:4)

1. Institut khimii AN Tadzhikskoy SSR. Predstavleno akademikom
AN Tadzhikskoy SSR K.T.Poroshinym.

GLEMBOTSKIY, V.A., doktor tekhn.nauk; KOSHERBAYEV, R.T.

Rate of formation of an absorption layer of flotation agents on
mineral particles. Vest. AN Kazakh.SSR 19.no.2:14-20 F '63.
(MIRA 16:5)

(Adsorption)

(Flotation)

GLEMBOTSKIY, V.A.; KULIKOV, I.R.

Sulfidization of cerussite by means of various ... Platers and
their combinations in the flotation process. Izv. Akad. Nauk SSSR
27-35 1963. (MIRA 18:2)

GLEMBOTSKIY, V. A. (Dr. Ing.)

"Iron ore flotation reagents."

report submitted for 6th Intl Mineral Processing Cong, Cannes, 26 May-2 Jun 63.

Chief, Lab of Flotation and Flotation Reagents, A. A. Skochinskij Mining Inst,
Moscow.

SOROKIN, M.M., kand.tekhn.nauk, prof : GLEBOVTSKIY, V.A., doktor tekhn.nauk;
RAUKHTREER, Ye.L., kand.tekhn.nauk

Flotation properties of some compounds of the aromatic series. Na-
uch. soob. IGD 19:12-23 '63. (MIRA 17:2)

GLEMBOTSKIY, V.A.; UVAROV, V.S.

Mechanism underlying the activating effect of some water-soluble compounds on the flotation of celestine and anhydrite. Dcl.
AN Tadzh. SSR 6 no.3:26-29 '63. (MIRA 17:4)

1. Institut khimii AN Tadzhik. Soy SSR. Predstavleno shlenov-korrespondentom AN Tadzhikskoy SSR V.I. Nikitinym.

GLEMBOTSKIY, V.A.; UVAROV, V.S.

Effect of sodium sulfide on the flotation of celestine and anhydrite. Dokl. AN Tadzh. SSR 6 no.5:24-27 '63. (MIRA 17:4)

1. Institut khimii AN Tadzhikskoy SSR. Predstavleno chlenom-korrespondentom AN Tadzhikskoy SSR V.I.Nikitinym.

GLEMBOTSKIY, V. A.; ANFIMOVA, Ye. A.

"Specific crystallochemical and structural features of oxidized minerals of lead and influence on the choice of reagents for the flotation of these minerals."

report submitted for 7th Intl Mineral Processing Cong, New York, 20-25 Sep 64.

GLENDOTSKIY, V.A., prof. doktor tekhn. nauk, otv. red.; VASIL'YEV,
B.K., red.

[Intensification of the flotation process] Intensir'ika-
tsiia flotatsionnogo protsesssa. Moskva, Nauka, 1964. 46 p.
(MIRA 17:12)

1. Moscow. Institut gornogo dela im. A.A.Saechinskogo.

GLEMBOTSKIY, Vladimir Aleksandrovich; LMITRIYEVA, Galina
Mikhaylovna

[Effect of the origin of minerals on their flotation
characteristics] Vliianie genezisa mineralov na ikh flot-
tatsionnye svoistva. Moskva, Izd-vo "Nauka," 1966. 110 p.
(MIRA 18:3)

ARASHKEVICH, Vsevolod Markovich; BONDAR', M.Z., retsentsent;
GLEBOVSKIY, V.A., prof., doktor tekhn. nauk, retsentsent;
KUNIK, V.F., red. izd-va; BOLEVA, Z.A., tekhn. red.

[Dressing of nonferrous metal ores] Obogashchenie rud tsvet-
nykh metallov. Moskva, Izd-vo "Nedra," 1964. 492 p.
(MIRA 17:2)

GLEMBOTSKIY, V.A., prof.; KOSHERBAYEV, K.T. inzh.

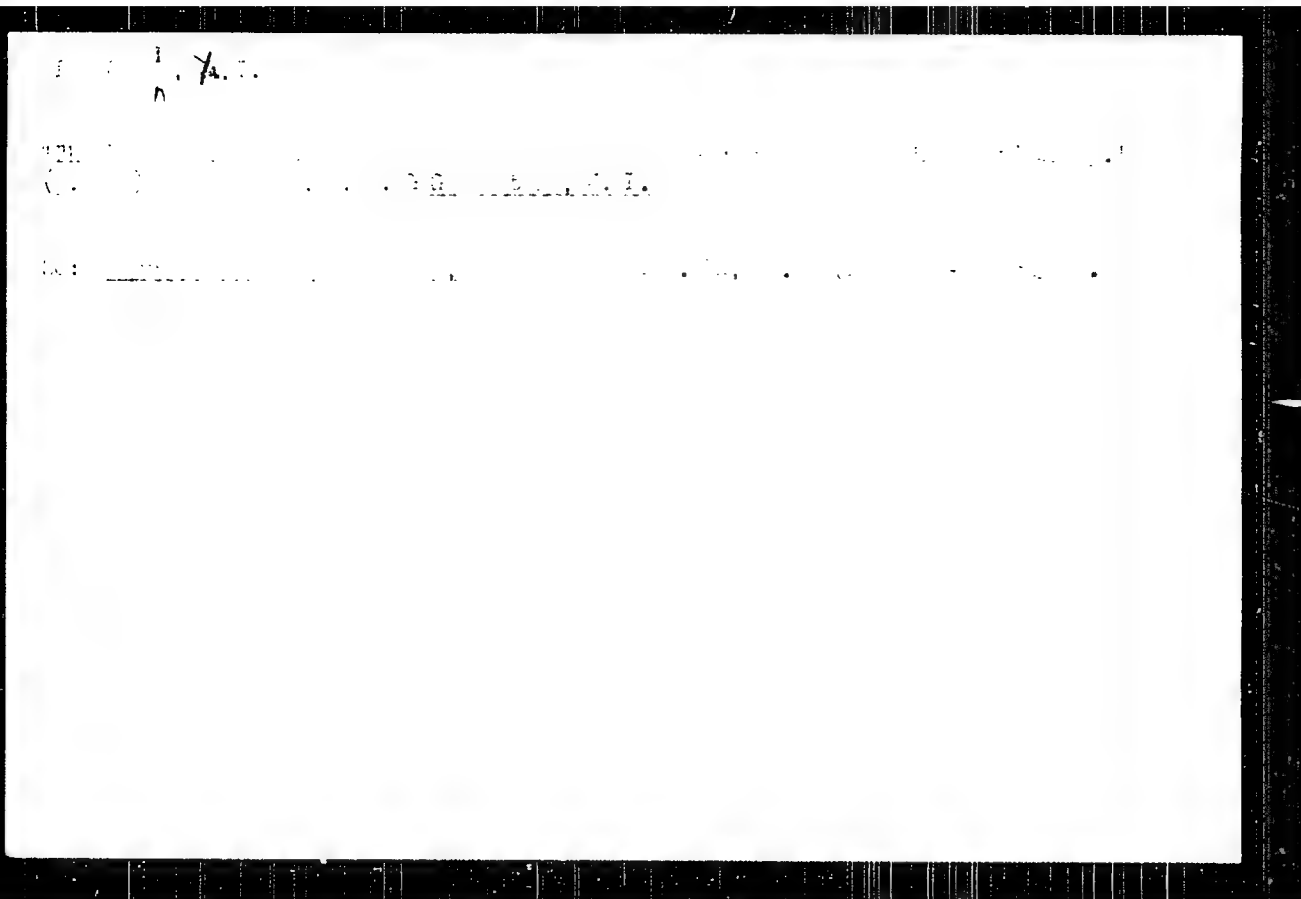
Increasing the effectiveness of the flotation of sulfide ores
using the method of separate processing of various fractions of
a polydispersed pulp. Izv. vyz. ucheb. zav. gor. zhur. 7
no. 3-4 155 '64. (MIRA 17:12)

1. Inzh. nauch. gos. univ. imeni A.A. Stuchinskogo.

GLEIBOTSKII, Ya. L.

"Comparative rate of direct and reverse mutations in the loci of Yellow, Achante-Scute, White and Forked N Drosophila Melanogaster." Chair of Genetics (Prof. N. I. Dubinin) All-Union Zootechnical Institute of Fur-Bearing Animals at Balashikha near Moscow. (p. 813) by Gleibotskii, Ya. L.

SO: Biological Journal (Biologicheskii Zhurnal) Vol. V, 1936, No. 5



GLEMBOTSKIY, Ya. L.

6827. Kalinin, A. D. i Glembot'skiy, Ya. L.
3500 kilogrammov poloka ot Kazhodoj korovy. (Opyt raboty markhin.
Podsobnogo khozyaystva Torf'evmorpiti). Yakutsk, Yakutskni'olizdat,
1954. 28 s. 20 sm. (M-vo sel'skogo khozyaystva yakut. ASSR. Uchastniki
"akhv) 3.000 ekz. 30 k. - (55-2841) 2 636.1.023 st (57.31)

30: Knizhnaya Letopis' No. 6, 1955

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"Present state and prospective development of animal husbandry in Lena and Olekminsk Districts of the Yakut A.S.S.R."

p. 176 Trudy Akad. Nauk SSSR, Yakutsk Filial, No. 1, 1956.

GLEMBOTSKIY, Ya. I.

Inbreeding practiced in breeding fine-wool sheep [with summary in English]. *Viul.MOIP. Otd.biol.* 61 no.4:23-36 J1-Ag '56. (MLHA 10:8)
(INBREEDING) (SHEEP BREEDING)

GLEMBOTSKIY, Ya.L., kand.sel'skokhoz.nauk, otv.red.; KUSTUROV, D.V.,
red.izd-va; PARNIKOV, Ye.S., tekhn.red.

[Reports at the Eighth Scientific Session; botany, soil science,
zoology, animal science] Doklady na Vos'moi nauchnoi sessii;
botanika, pochvovedenie, zoologiya, zootekhnika. Iakutsk,
Iakutskoe knizhnoe izd-vo, 1957. 310 p. (MIRA 12:10)

1. Akademiya nauk SSSR. Yakutskiy filial, Yakutsk.
(Yakutia--Natural resources) (Yakutia--Agriculture)

ГЛЕМБОТСКИЙ, Я.Л.

GLEMBOTSKIY, Ya.L.; DADYKIN, V.P.

Work at the Institute of Biology of the Yakut Branch. Izv. AN SSSR.
Ser.biol. no.6:756-762 M-D '57. (MIRA 10:12)

1. Institut biologii Yakutskogo filiala AN SSSR.
(YAKUTIA—BIOLOGICAL RESEARCH)

GLEMBOTSKIY, Ya.L.

Some characteristics of variability and inheritance of the fleece in sheep and goats. Report No.1: Relation between the variation in the amount of clipped wool and the variability of characters influencing it. Biul. MOIP. Otd. biol. 64 no.3:117-133 My-Je '59.

(MIRA 13:3)

(Wool)

GLEMBOTSKIY, Ya.L.

Some characteristics of the variability and inheritance of
fleece in sheep and goats. Report No. 2: Inheritance of the
wool clip in crosses between Angora goats and coarse-wool
goats. Biul. MOIP. Otd. biol. 65 no. 4:89-101 J1-Ag '60.

(MIRA 13:10)

(GOAT BREEDING) (WOOL)

GLEMBOTSKIY, Ya.L.; ABELEVA, E.A.; LAPKIN, Yu.A.

Effect of fractionation of the gamma-ray dose on mutation frequency
in spermatids of *Drosophila melanogaster*. Radiobiologia 1 no.1:
119-122 '61. (MIRA 14:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(GAMMA RAYS—PHYSIOLOGICAL EFFECT)
(ZOOLOGY—VARIATION)

27 1220

S/560/61/000/010/009/016
D298/D302

AUTHORS: . Glazbovskiy, Ya. L., Abelyova, E. A., Lapkin,
Yu. A., and Parfenov, G. I.

TITLE: The effect of cosmic flight factors on the
occurrence frequency in *Drosophila Melano*
gaster of recessive lethal mutations in the
X-chromosome

SOURCE: Akademiya nauk SSSR Iskusstvennyye sputniki
Zemli no 10 Moscow, 1961 61-68

TEXT Reference is made to early studies of mutagenic changes
under the effects of ionizing radiation. Experiments on yeast
and drosophila pointed out the minimal effect of cosmic radia-
tion on the natural mutation process. Further studies on dros-
phila confirmed the insignificance of cosmic radiation in spon-
taneous mutation. More recent studies have been undertaken by
the authors on two strains of *Drosophila Melanogaster*-the 33

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The effect of cosmic

(D-32) and D-18 (D-18)- to determine the mutagenic effect after a cosmic flight on the organism. The flight of the 2nd Sputnik lasting about 24 hr and conducted at a height of 300 km, was used to study the effects of cosmic radiation on the heredity of the drosophila. Two types of tests were carried out: (1) to determine the occurrence frequency of recessive lethal mutations in the X-chromosome (sex-linked), and (2) to determine the occurrence frequency of dominant lethal mutations causing death in the early developmental stage of heterozygous organisms in these mutations. The mutability of the two spermatogenic stages was compared--that of the spermatid and that of the mature sperms. The frequency of induced mutations was studied, depending on the frequency of spontaneous mutations. Cross-breeding of the flies which underwent cosmic flight was performed in August 1961 to determine the sex-linked recessive lethals. The Muller-5 method was used for this purpose. The F_2 (second generation) culture percentage with no grey-red-eyed females was taken

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D298/D302

The effect of cosmic...

as index of the occurrence frequency of recessive lethal mutations in the X-chromosomes of the females which had been in cosmic flight. In both strains (D-32 and D-18), it was found that the mutagenic effect is characterized by a statistically valid increased frequency of sex-linked recessive lethal mutations, whereby the D-18 strain (with a higher spontaneous mutability) appeared to be the more sensitive to mutagenic effect. The dotted nature of the induced mutations (20 tested cytologically) and the elevated frequency of mutation of the spermatid, as compared to the sperms, indicates their possible stipulation by cosmic radiation. It is emphasized that an accurate determination cannot be made of the role played by cosmic radiation in the mutagenic effect noted during relatively short cosmic flights. Further experiments to clarify the mutagenic effect of vibrations, acceleration, and weightlessness should be carried out. There are 1 figure, 1 table and 11 references: 2 Soviet-bloc and 9 non-Soviet-bloc. The references to the English-language publications read as follows: O. G. Fahmy.

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The effect of cosmic ..

15021
D/560/61/000/010/009/016
D293/D302

M. I. Fahmy, Genet. Res., 1, 173, 1960; P. T. Ives, Proc. Nat.
Acad. Sci. USA, 45, N 2, 1959

SUBMITTED: May 3, 1961

Card 4/4

1983
S/560/61/000/010/011/016
D298/D302

27 12.2.0

AUTHORS:

Glembolskiy, Ya. L., Prokofieva-Bel'govskaya,
A. A., Shamina, Z. B., Gol'dat, S. Yu.,
Khvostova, V. V., Valeva, S. A., Eyges, N. S.,
and Nevzgedina, L. V.

TITLE:

Effect of cosmic flight factors on the heredity
and development of actinomycetes and higher
plants

SOURCE:

Akademiya nauk SSSR. Iskusstvennyye sputniki
Zemli. no. 10. Moscow, 1961, 72-81

TEXT:

The second cosmic space-ship was utilized to study
the combined genetic effect of cosmic flight on organisms. This
article deals with the study of the following cultures: actino-
myces erythreus, stems 2577 and 8594, and actinomyces strepto-
mycini Kras., stem 11C-3 (LS-3). After the cosmic flight, the

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Effect of cosmic. .

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standards and experimental cultures were investigated according to: (1) vitality and (2) a microscopic characteristic of growth and development. The 2577 and 8594 stems differ by the sizes of their nuclear element in the spore and by their sensitivity to ultra violet rays (UV). It is also assumed that they differ in their reaction to ionizing radiation. All the 4 tested stems were found to be sensitive to conditions of cosmic flight. The vitality (i.e., the number of spores which survived and developed colonies) of the radio-resistant act. erythraeus 2577, as compared to the standards, increased 6 times; the no. 8594 decreased 12 times; the act. aureofaciens 8594-220 (LSB-220) dropped in vitality by about 75% on the average. In the roots of all 5 types of experimental seeds, the percentage of chromosome changes was somewhat increased. However, only in the case of 2 types was this increase statistically valid. In 3 types of plants, an increase of mitosis was noted. In the case where the percentage of anaphases with chromosome changes was found

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D298/D302

Effect of cosmic...

to be high (about 5%). the tempo of mitosis fell. The conditions of cosmic flight stimulated the growth intensity compared to the standards. The following microscopic morphology features of the experimental cultures confirm this fact: (a) development of a more basiphyllic and powerful gif, (b) growth of a thicker intertwining of mycelia, (c) lengthy growth of well-developed gifs. Data on the survival of the 8594 and 2577 stems are not completely valid since the concentrations of the spore suspensions of the control and experimental cultures were determined visually from the suspension turbidity. The morphology changes in the colonies were investigated on the act. erytareus 8594 and act. aureofaciens LSB-2201. Obtained data show that the morphology changes in the actinomyces, both in the experiment (cosmic flight) and control, lie within the same limits. The cytology analysis of agricultural plant seeds affected by cosmic flight was conducted by studying the chromosome impairment in the ana- and telophases of the first mitosis. Obtained results

X

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Effect of cosmic ..

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D298/D302

showed that in all the investigated plants there is a certain increase of cells with chromosome changes and in only 2- winter wheat and Spartanet's peas--is this increase statistically valid. There are 4 figures, 2 tables and 5 references: 4 Soviet bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: S. B. Pipkin W. N. Sullivan, Aerospace Med., 30, 585, 1959.

SUBMITTED: May 3, 1961

Card 4/4

12696

S/747/62/000/000/020/025
D243/D307

AUTHORS: Glumbotskiy, Ya. L., Abeleva, E. A. and Lapkin, Yu. A.

TITLE: The effect of small doses of ionizing radiation on the frequency of occurrence of sex-linked, recessive, lethal mutations in *Drosophila*

SOURCE: Raditsionnaya genetika; sbornik rabot. Otd. biol. nauk AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 300-311

TEXT: The preliminary results are given of experiments carried out from 1959 to March 1961, to study the effect of 20 r doses of radiation on the frequency of sex-linked, recessive lethals, in relation to a) type of radiation - γ rays or high speed neutrons; b) radiation intensity - single or repeated doses; c) gamete development - mature sperm or spermatids; d) interstrain differences in spontaneous mutation rate. It is stated that little work has been done on the effects of sub-25 r doses, especially as regards the existence of a threshold and accumulative effects. The experiments were carried out on Δ -18 and Δ -32 (D-18 and D-32) *Drosophila* lines, dif-

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The effect of small ...

8/747/62/000/000/020/025
D243/D307

tering; considerably in the spontaneous rate of mutation. Spontaneous and induced lethals were detected by the Muller-5 method. ^{60}Co γ rays were delivered at 0.95 r/min. Experiments with high-speed neutrons began in May 1960, using a 1000 kv reactor, the dose intensity being 115 r/hr. The results refer only to experiments with D-32 line. The authors found that D-R doses of γ radiation increased the frequency of recessive lethals in sperm and spermatids and repeated radiation produced a cumulative, mutagenic effect. The relative frequency of recessive lethals per radiation induced by repeated 5 r γ radiation agrees with the data of other authors using higher single doses. The mutagenic effect of high-speed neutrons is 1 1/2 - 2 times greater than that of γ rays. Spermatids had a higher mutation rate than sperm, with both types of radiation. No threshold effect was demonstrated and it is suggested that, should a threshold be observed, it will be specific to the type of radiation, type of human germinal cells of low doses of γ rays, and especially, high-speed neutrons is stressed. There are 3 tables.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biological Physics, AS USSR, Moscow)

Card 2/2

GLEMBOTSKIY, Ya.L.; ABELEVA, E.A.; LAPKIN, Yu.A.; PARFENDV, G.P.

Effect of space flight factors on the frequency of the appearance
of recessive lethal mutations in the x-chromosome of *Drosophila*
melanogaster. Probl.kosm.biol. 1:219-231 '62. (MIRA 15:12)
(SPACE FLIGHT—PHYSIOLOGICAL EFFECT)
(VARIATION (BIOLOGY))

GLEMBOTSKIY, Ya.L.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.; SHAMINA, Z.B.;
KHOVOSTOVA, V.V.; VALEVA, S.A.; EYGES, N.S.; NEVZDOGINA, L.V.

Effect of space flight factors on the heredity and develop-
ment in actinomycetes and higher plants. Probl.kosm.biol.
1:236-247 '62. (MIRA 15:12)
(SPACE FLIGHT—PHYSIOLOGICAL EFFECT)

GLEMBOTSKIY, Ya.L.; PARFENOV, G.P.

Effect of space flight factors on some biological indices in
insects. Probl.kosm.biol. 2:98-115 '62. (MIRA 16:4)
(SPACE FLIGHT--PHYSIOLOGICAL EFFECT)
(DROSOPHILA) (GENETICS)

GLEMBOTSKIY, Ya.L.; PARFENOV, G.P.; LAPKIN, Yu.A.

Influence of space flight factors on the frequency of occurrence
of sexlinked recessive lethal mutations in *Drosophila melano-*
gaster. Isk.sput.Zem. no.15:113-119 '63. (MIRA 16:4)
(Space biology)

GLEMBOTSKIY, Ya.L.; LAPKIN, Yu.A.; PARENOV, G.P.; KAMSHILCVA, Ye.M.

Effect of cosmic flight factors on the frequency of occurrence
of sex-interlinked recessive lethal mutations in *Drosophila*
melanogaster. Kosm. issl. 1 no.2:327-334 S-O '69.

(MIRA 17:4)

DUBININ, N. P.; ARSENEVA, M. A.; GLEBOVSKIY, Ya. L.

"Genetic effect of small doses of ionizing radiation."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,
31 Aug-7 Sep 64.

KUZIN, A.M.; GLEMBOTSKIY, Ya.L.; LAPKIN, Yu.A.; KALENDO, G.S.; BREGADZE, Yu.I.;
MAMUL', Ya.V. [deceased]; MYASHYANKINA, Ye.N.

Mutagenic effectiveness of incorporated C^{14} . Radiobiologiya 4, no.6:
804-809 '64. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

GLEMBOTSKIY, Ya.L., kand. sel'khoz. nauk, otv. red.; LICHATNIK, A.V.,
red.

[Judging and selecting herd rams of the Altai Fine-wool
breed] Otsenka i otbor proizvoditelei Altaiskoi tonkorunnoi
porody. Novosibirsk, Nauka, 1965. 158 p. (PRA 19:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye.

SUSHCHINSKIY, M.M., doktor fiz.-matem.nauk; OBUKHOV, A.M.;
GILYAROV, M.S., doktor biolog.nauk; TAFT, V.A., doktor tekhn.nauk;
GLEBOVSKIY, V.G., doktor tekhn.nauk; OLOFINSKIY, N.F., kand.
tekhn.nauk

Scientific contacts with foreign countries. Vest. AN SSSR 31
no.12:101-105 D '61. (NIPA 14:1:)

1. Chlen-korrespondent AN SSSR (for Obukhov).
(Science--Congresses)

GLEMBOTSKIY, Ye.A.

Work practices of the veterinarians of Kotovsk District,
Odessa Province. Veterinariia 39 no.10:18-21 O '62.
(MIRA 16:6)

1. Glavnyy veterinarnyy vrach Kotovskogo rayona, Odesskoy
oblasti.

(Kotovsk District—Veterinary medicine)

SEVERIN, S.Ye.; GLEZHNA, A.A.

Effect of imidazole derivatives on pyruvic dehydrogenase in the
muscle tissue. Biokhimiya 20 (1965) 1170-1176. No. 11/12.
(ISSN 1341-32)

1. Kafedra biokhimi i zhivotnykh biologo-poverkhnostnykh
Gosudarstvennogo universiteta imeni M.V.Lomonosova, Moskva.
Submitted June 24, 1964.

CEKANSKI, Adam; GLENC, Franciszek

Colposcopic examinations of erosions of the vaginal part;
material of II Obstetric and Women's Diseases Clinic of the
Medical Academy in Bytom. Gin. polska 28 no.1:23-31 Jan-Feb
57.

1. Kierownik: prof. dr. B. Stepowski. Bytom, Klinika Położnicza
i Chorob Kobietych, Al. Słowackiego 15.

(CERVIX, UTERINE, dis.

erosion of portio vaginalis, colposcopic exam.,
statist. (Pol))

GLENC, Franciszek

Treatment of erosion & rupture of the portio of the uterus with
electrocoagulation. Gin. polska 29 no.5:493-498 Sept-Oct 58.

1. Z II Kliniki Położnictwa i Chorob Kobietych A. M. w Bytomiu
Kierownik: prof. dr. med. B. Stecowski Raciborz--ul. Wojska Polskiego
2.

(CERVIX, UTERINE, dis.

erosion & rupt., ther., electrocoagulation (Pol))

(ELECTROCOAGULATION, in various dis.

cervical erosion & rupt. (Pol))

KLIMCZYK, Zdzisław; GLENC, Franciszek

Depression of lactation by synthofolin. Gin.polska 30 no.5:
559-562 S-O '59.

1. Z II Kliniki Położnictwa i Chorob Kobiectych Śl. A.M. w
Bytomiu Kierownik: prof. dr B. Stepowski.
(DIETHYLSTILBESTROL pharmacol)
(LACTATION pharmacol)

CEKANSKI, Adam; GLENC, Franciszek; JONEK, Jan

Observations on nuclear chromatin in parents of infants with developmental defects. Ginek. pol. 33 no.5:581-584 '62.

1. Z II Kliniki Położnictwa i Chorob Kobietych Śląskiej AM w Bytomiu.
Kierownik: prof. dr med. B. Stopowski.
(ABNORMALITIES) (SEX CHROMATIN)

JONEK, Jan; GLENC, Franciszek

Behavior of alkaline and acid phosphatases and of ATPase in
the uterine mucosa of menopausal women. Endokr. pol. 14 no.1:
85-99 '63.

1. II Klinika Położniczo-Ginekologiczna Sz. AM w Zabrze-
Rokitnicy Kierownik: prof. dr Br. Stepowski.
(MENOPAUSE) (MUCOUS MEMBRANE)
(ALKALINE PHOSPHATASE) (HISTOCHEMISTRY)
(ACID PHOSPHATASE) (ADENOSINE TRIPHOSPHATASE)
(UTERUS) (FALLOPIAN TUBES)

JONAK, Jan; ZEMIEGG, Marian; GLEBO, Franciszek

Morphological structure of early human embryos. Ginek. Pol. 35
no.32/37-40 1964

1. Z II Kliniki Położnictwa i Chorób Kobietych Śląskiej Aka-
demii Medycyny w Zabrze (Kierownik prof. in. med. B. Stepowski
[deceased]).

OLENCIU, L.

The conquerors of the stratosphere! ARIFILE PATRIEI. (Asociatia Voluntara pentru Sprijinirea Apararii Patriei) Bucuresti. p. 16.
Vol. 2, no. 8, Aug. 1956.

SOURCE: East European Accessions List, (EEAL), Library of Congress,
Vol. 5, No. 11, November, 1956.

HUNGARY/Soil Science - Mineral Fertilizers.

J

Abs Jour : Ref Zhur Biol., No 22, 1958, 100064

Author : Gleria, J.

Inst : .

Title : Application of Isotopes and Investigation of Fertilizers

Orig Pub : Agrokhim. es. talaj., 1957, 6, No 3, 237-244

Abstract : No abstract.

Card 1/1

GLERIA, Janos, di.

The tenth anniversary of the existence of the Hungarian Society
for Agricultural Sciences. Agrochem talajtan 2 no.1:137-138
Mr '62.

1. "Agrokemia es Talajtan" szerkeszto bizottsagi tagja.

GLORYN, A.

Slide for projecting the transportation of soil on 600-mm working
tracts. (Conclusion) p. 263. Vol. 10, no. 11, Nov. 1955; Drogounictwo.

SOURCE: East European Accessions (EEA), LC, Vol. 5, no. 3, March 1956.

USSR/Human and Animal Physiology (Normal and Pathological). T
Nervous System. Higher Nervous Activity.
Behavior.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 80047.

Author : Glesalyan, L.S.

Inst : _____

Title : On the So-Called Active Movements of a Dog's Paw.

Orig Pub: Izv. AN ArmSSR. Biol. i s.-kh. n., 1957, 10 No 8,
59-63.

Abstract: Conditioned food reflexes of a passive kind of the
posterior right paw were formed in dogs. The active
movement of this paw, observed between application
of stimulators, did not depend on the degree of satura-
tion of the dog. Before the application in the stereo-
type of a negative conditional stimulator, and following

Card : 1/2

GLESO, A.

Manufacture of stained asbestos cement roofing. p. 238.

STAVEA. (Poverenictvo stavebnictva) Bratislava, Czechoslovakia. Vol. 6, no. 8, Aug. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 10, Oct. 1959.
Uncl.

GLSINGER, L.

200th anniversary of percussion. Lijeon. vjeon. 83 no.2:172-175
'61.

(PERCUSSION hist)

GLEISINGER, Lavoslav

GLEISINGER, Lavoslav, dr.

The podagra and lithiasis in the old Ragusa. Lijec. vjes. 76 no.
3-4:142-152 Mar-Apr 54.

1. Iz zavoda za povijest medicine Medicinskog fakulteta u Zagrebu.
(GOUT, epidemiol.
Yugosl., hist.)
(KIDNEYS, calculi
epidemiol. in Yugosl., hist.)

GLEISINGER, Lavoslav, Dr.

Andrija Dudic on Vesalius' death. Lijec. vjes. 78 no.11-12:
555-562 Nov-Dec 56.

1. Iz Zavoda za povijest medicine Medicinskog fakulteta Sveucilista
u Zagrebu.

(FAMOUS PEOPLE

Vesalius, Andreas, his travel to Jerusalem & death (Ser))

YUGOSLAVIA

Dr. Lavoslav GIESINGER, Institute for the History of Natural, Medical and Mathematical Sciences of the Yugoslav academy of Arts and Sciences (Institut za povijest prirodnih, matematičkih i medicinskih nauka JAZU [Jugoslavenska Akademija Znanosti i Umjetnosti], Zagreb

"Anton Mihelic (1748-1818) and His Contribution to Neurophysiology."

Zagreb, Liječnički Vjesnik, Vol 85, No 3, 1963; pp 307-315.

Abstract [English summary modified]: Review of the work of this Slovenian physician and teacher classmate (in Vienna) of Prochazka, who taught physiology pathology and materia medica in Prague, was later dean of medical school there, wrote 8 medical books in which he gave the "coup de grace" to old theories of nerve transmission through hollow nerves or by mechanical vibration or oscillation. Sixty-two historical references.

1/1

OLET, Oldrich, inz. CSc.

Characteristics of the physicohydrologic properties of
Czechoslovak soils. Rost výroba 10 no. 5/6:600-609
My-Je '64.

1. Central Research Institute of Plant Production,
Prague - Ruzyně.

GIET, Eldrich, inz. GSc.

Monitoring of Chernozems on deep Pleistocene deposits.
Vodohosp can 11 no. 1:10-33 '64.

1. Central Research Institute of Plant Production, Section
of Soil Research, Irkutsk - Buryatia.

CONFIDENTIAL

For information, please refer to the report of the Committee on the
Soviet Union, dated 11 May 1971, at page 1.

The report of the Committee on the Soviet Union, dated 11 May 1971,
of the Department of State, at page 1, is being referred to the
Committee on the Soviet Union, dated 11 May 1971, at page 1.

BEREZIN, A.I.; BRODSKIY, Yu.A.; BLOKHIN, Z.I.; VERNEGO, K.I.;
GALDINA, E.M.; GLETMAN, L.A.; GINZBURG, D.B.; GUTCH, V.G.;
GUREVICH, L.R.; DAUVAL'TER, A.I.; YEGOROVA, L.S.; KOTLYAR,
A.Ye.; KUZ'YAK, V.A.; MAKAROV, A.V.; POLYAK, V.V.; POPOVA,
E.M.; POKHISHNIKOV, V.F.; SILVERMAN, S.I.; SIL'VESTROVICH,
S.I., kand. tekhn. nauk, dot.; SOLOMIN, L.A.; TIKHIN, B.S.;
TYKACHINSKIY, I.D.; CHIGAYEVA, V.F.; SHLAIN, I.S.; EL'KIND,
G.A. [deceased]; KITAYGOLODSKIY, I.I., nauch. sovetnik nauki i
tekhniki KDFSR, doktor tekhn. nauk, prof., red.; GOLIKOVA,
E.A., red. izd-va; KOPALOVSKAYA, L.A., tekhn. red.

[Handbook on glass manufacture] Spravochnik po proizvodstvu
stekla. [By] A.I. Bereznoi i dr. Pod red. I.I. Kitaigorodskogo
i S.I. Sil'vestrovicha. Moskva, Gostroiizdat. Vol. 2. 1963.
115 p.

(Glass manufacture)

NOVAK, Zd.; GLATT, J.

Ozonization of drinking water in Czechoslovakia. Vodni
hosp 14 no.4:152 '64.

USSR/Physical Chemistry - Molecule. Chemical Bond

B-4

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3513

Author : Glevashev, G. Ya.

Inst : Kazan' University

Title : Dependence of the Configuration of the Resonance Absorption Curve on the Temperature.

Orig Pub : Uch. zap. Kazanskogo un-ta, 1956, 110, No 1, 121-126

Abstract : For the system of spins of a crystal of suppressed orbital magnetism, there have been calculated the moments of resonance curve of absorption of zero (μ_0), first ($\Delta \nu_1$), second ($\Delta \nu_2$), fourth ($\Delta \nu_4$) orders, taking into account the temperature dependence. Energy of the system of spins consists of energy in the external field H_0 and energy of dipole and exchange interaction H_1 . In the calculations, it was considered that $H_0 \gg H_1$ and $g\beta H \ll kT$ (H - external field). Moments of the curve were calculated in relation to Larmor frequency.

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USSR/Physical Chemistry - Molecule. Chemical Bond

E-4

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3513

since their exchange energies differ in sign, temperature variation of width of line must differ: in ferromagnetics the width decreases with drop in temperature, while in antiferromagnetics it increases. This is confirmed by experiments (Bloembergen N., Phys. Rev., 1950, 78, 572; Okamura T. et al., Phys. Rev., 1951, 82, 285). In the approximation at which calculations were made (up to $1/kT$), the moments \bar{M}_0 , \bar{M}_2 do not depend on H; however the moment of first order is proportional to H: $\bar{M}_1 = -(\lambda \beta \gamma / 2kT) \sum_{jk} B_{jk}$ (B_{jk} -- coefficient of dipole interaction). The absorption curve is asymmetrical in relation to its center; asymmetry of the curve increases on increase of the field and on decrease of the temperature.

Card 3/3

- 12 -

MIKHAYLOVA, Ninel' Petrovna; GLEVANSKAYA, Alla Mikhaylovna;
KRUTIKHOVSKAYA, Z.A., kant. geol.-miner. nauk, otv.
red.; SERDYUK, O.F., red.

[Magnetization of the basic and ultrabasic rocks of the
Ukrainian shield and its use in geology] Namagnichennost'
osnovnykh i ul'traosnovnykh porod Ukrainskogo shchita i ee
ispol'zovanie v geologii. Kiev, Naukova dumka, 1965.
148 p. (MIRA 13:2)

MIKHAYLOVA, N.P. [Mykhailova, N.P.]; GLEVAS'KA, A.M. [Ele-vus'ka, A.M.]

Plenum of the Commission on a Constant Field and Paleomagnetism.
Dop. AN URSR no.2:279-280 '64. (MIRA 17:6)

MINAYLOVA, N.P.; GINYUSOVA, A.M. [Eleven-Pa, A.M.]

Use of the eugrethothermal method in determining re inclusions
in pyrozenes, Dop. AN UkrSSR vol.1:596-597, 1964.

1964, 14:5

1. Institut geofiziki AN UkrSSR.

VITKAUSKAS, J., red.; ZVIRENAS, A., red.; GERSENYC, J., red.;
ADOMAVICIUS, B., red.; BARANAVICKAS, L., red.; PETRUSEVICIUS, V.,
red.; GLEVAVICIENE, S., red.

[Problems of the mechanization of agricultural production]
Zemes uio ganybos mechanizavimo klausimai. Valnia, Lietuva
"Mintis," 1964. 118 p. [In Lithuanian] (MIRA 13:2)

1. Lietuvos zemes uio mechanizavimas. In: Lietuvos zemes uio
mekanizavimo tyrimo institutas.